

ODP-565/77

28 March 1977

MEMORANDUM FOR THE RECORD

FROM : [REDACTED]  
Deputy Director for Applications, ODP

SUBJECT: Automation of DCI Activities

Background

Recommendations were submitted to [REDACTED] on the automation of 2 DCI tasks: (1) automation of Admiral Turner's associates file and (2) automation of Admiral Turner's schedule and notes of his meetings. For task 1, ODP hardware was suggested in either a batch or on-line mode. A mini-computer was suggested for task 2 because of my perception of the need for high availability (99%) and predictable response time.

DCI Response

On 24 March I met with [REDACTED] to discuss both tasks. Their conclusions were that task 1 and 2 should both be placed on GIM. Placing task 1 on GIM should not be difficult. I had estimated that it could be operational in less than 1 month. We are now starting to proceed.

I had a major concern about placing task 2 on GIM and I expressed this concern on numerous occasions at the meeting. It was [REDACTED] position that he could not justify that \$100,000 expenditure to get the increase in availability and predictability. [REDACTED] had asked Admiral Turner if 90-95% availability was sufficient for task 2, and his answer was yes.

Future Action

Task 1

[REDACTED] will write a project proposal by 1 April. The actions to start the terminal installation has begun. [REDACTED] will write the software on an over-time basis. Completion date is set for 25 April.

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DD/A Registry

77-1722

ODP 551-77  
29 March 1977

MEMORANDUM FOR: Lieutenant Commander [REDACTED] USN

FROM : Clifford D. May, Jr.  
Director of Data Processing.

SUBJECT : Rapid Access to Intelligence Information

REFERENCE : My memo dtd 16 March 77, subject: Automation  
of DCI Activities (ODP 491-77)

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1. This paper contains our response to the last of the three discussion topics mentioned in reference. It deals with the requirement for rapid access from the DCI area to finished intelligence information. As we have discussed before, this question is a very broad one to cover. As agreed in our original discussions, we have not done an in-depth study, but rather have tried to respond in a reasonable timeframe with a general "sizing" of this requirement. The focus is on what is available today and where new systems will help in the future. If a more thorough study is needed, the Deputy Director for Intelligence is in a better position to provide it with the advice and assistance of my Office.

2. You may direct questions concerning this study to [REDACTED] with whom you have previously worked, is attending the nine week Senior Seminar training program.

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Clifford D. May, Jr.

Att: a/s

cc: [REDACTED]

Distribution:

1 - OGC  
1 - DDA Subject

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when separated from attachment.

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RAPID SEARCH OF FINISHED INTELLIGENCE DATA

A. Requirement

The DCI would like to access finished intelligence reports from his private terminal. The reports would come from a wide variety of sources both within CIA and other intelligence organizations. The system would be heavily used when crises situations occur. Rapid access to up-to-date intelligence information would then be vital. There should be only one set of operating procedures for access to the files, and not one for each file. The query language must be consistent across all files. Standardization of field names should be insured.

B. Discussion

The capability to access a wide variety of finished intelligence documents from a terminal does not now exist. There are long term plans to have this capability, but no sooner than in 4-5 years.

There are, however, individual files currently accessible from a CIA terminal. The majority of these files contain raw intelligence data and not finished intelligence reports. Some examples are:

OASIS - Military information on foreign countries.

AEGIS - A variety of OCR maintained files primarily dealing with document retrieval.

COLTS - Capability to search large electrically received text (cable) files.

Another system that is currently available is the Community On-Line Intelligence System (COINS). This system was started by the Intelligence Community in 1961 with the purpose of developing a network of computer-based information systems. The data in these systems is shared by the Intelligence Community. There are about 50 files now in the COINS network.

Terminal requests from CIA are sent to a switch in DIA or NSA and then routed to the appropriate Agency servicing the request. The request is processed and the

results are sent back to the requesting organization. Response time is usually measured in hours. CIA has access to these files thru terminals at Headquarters, Chamber of Commerce and NPIC. Attachment 1 contains a list of the files in the COINS network. Further information on the capabilities and future plans for COINS is available from [REDACTED] of OSR ([REDACTED])

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It may be of interest to note that a rather extensive effort is currently underway to evaluate various machine assisted methods and procedures which would lead to a more effective handling of crises within the Agency. ORD is working very closely with the Operations Center to use a mini-computer to generate various crises scenarios, evaluate crises management team responses to the text scenarios and provide a test bed whereby the crises management team can evaluate the usefulness of various computer files and techniques. This mini-computer is now in the process of being installed. Mr. Vincent Heyman of the Operations Center [REDACTED] are the responsible contacts.

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Looking to the future, the SAFE project promises to provide the best answer to this requirement. The objective of Project SAFE is to provide a sophisticated information handling support to the Agency's intelligence analysts. It will give him the electronic means to:

- Receive "mail" and store what is valuable.
- Rapidly search millions of characters of data.
- Compose, edit and distribute their conclusions as finished intelligence products.

Testing of these SAFE concepts has been underway since 1972 and a successful pilot system (Interim SAFE) has been developed. The data in AEGIS and COLTS are part of Interim SAFE. The production date for SAFE is currently April 1981.

In conclusion, there are current files within the Intelligence Community that are available for query. In general, each system has its own "language" and rules for access. These files are more oriented towards raw intelligence data than finished reports. The SAFE project will provide the standardized and rapid access that is needed to support the wide variety of finished intelligence reports that was requested.

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| DD/A Registry |
| 77-1433       |

ODP 491-77  
16 March 1977

MEMORANDUM FOR: 

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FROM : Clifford D. May, Jr.  
Director of Data Processing

SUBJECT : Automation of DCI Activities

1. Last week ODP personnel met with DCI representatives to discuss the automation of activities in the DCI office. Three tasks were identified for possible action: (1) Automation of Admiral Turner's personal data; (2) Logging of Admiral Turner's conversations; and (3) Terminal access to finished intelligence reports. As a result of the requirements specified at the meeting, we have attempted to "size up" each task. The discussion of Tasks 1 and 2 is complete and is attached. Task 3 will be forwarded separately.

2. After a plan of action has been determined for Tasks 1 and 2, ODP will forward a project proposal to you. It will document the specifics on design, time, costs and user responsibility. We will, of course, be anxious to discuss any aspect of this paper with you at your convenience.

3. A word of caution. The Privacy Act of 1974 places certain restrictions on the creation and use of systems of records which contain personal data on American citizens. CIA is subject to this law. Task 1 and Task 2 appear to be covered by this law. ODP recommends that the Office of the General Counsel be consulted before the development of these systems STATINTL is initiated.

  
Clifford D. May, Jr.

Att: a/s

cc: OGC  
DDA

TASK 1 - AUTOMATION OF ADMIRAL TURNER'S PERSONAL DATA

A. Description of Requirements

This data currently resides on a disk pack which was part of an IBM 3 Model 10 configuration. The system contains approximately 1200 records. Each record contains data about individuals that Admiral Turner has had contact. Examples of the fields in the record are name, address, type of association, official title, etc.. The user requirements which must be supported are:

1. Add, change, and delete any field from any record. This includes both the main file and associated index files.
2. Print output reports on demand.
3. Selective search of the file against any logical criteria. This differs from requirement #2 in the FORMATING specifications of output. Requirement #2 has specific rules. This one is more flexible.

B. Discussion of Alternatives

1. Purchase of IBM 3 Model 10.

The current disk pack could be mounted on the IBM 3 and all existing software for this application would be operational. Additional work would be necessary for requirement #3 (selective search) which is not supportive on the current system. The file maintenance procedures (forms, key punch) would be similar to those in the existing system.

2. ODP On-line Facilities

All transactions would be entered from a terminal(s) located in the DCI area. The terminal would be connected to an ODP computer that supports on-line activity for many CIA users. The software is called GIMS. File maintenance activity (add, change, delete) would cause immediate changes to the data base. It would occur 10-15 seconds after the data was entered. Report production would be a two-step process. The data for the report would



be selected during the terminal session (2-4 minutes). A batch job would then be scheduled to produce the report in the ODP computer center (4-6 hours). Selective search of the file (requirement #3) is available at the terminal (2-4 minutes). The system will be available approximately 90% of the time.

3. ODP Batch Facility

All transactions would be entered from a terminal located in the DCI area. The terminal would be connected to an ODP computer that allows a user to COLLECT input transactions and output requests. These transactions would then be sent electronically to the ODP BATCH system for processing (4-6 hours). All output would appear on computer listings printed in the ODP computer center. This facility is appropriate if the 4-6 hour BATCH turn-around time is acceptable. The system will be available approximately 92% of the time.

4. Mini-computer Used for Other DCI Applications

If a mini-computer is selected for other DCI applications, this application could be placed on that mini-computer. The transaction load and input and output procedures could easily be accommodated. There would then be only one type of terminal in the area. The operational procedures would be similar to other applications running in the DCI area.

C. Estimates for Time and Costs

1. IBM 3 Model 10

Initial costs:

|                           |         |
|---------------------------|---------|
| Purchase price            | \$35000 |
| Software support (Req.#3) | 3000    |
| Total initial cost        | \$38000 |

Time schedule:

|                      |                              |
|----------------------|------------------------------|
| Software development | 3 weeks after<br>procurement |
|----------------------|------------------------------|

2. ODP On-line Facilities

Initial costs:

|                      |        |
|----------------------|--------|
| Terminal             | \$5000 |
| Disk pack            | 300    |
| Software development | 3000   |

Initial total costs \$8300

Monthly computer costs 300

Time schedules:

Software development 3 weeks

3. ODP BATCH Facility

Initial costs:

|                      |      |
|----------------------|------|
| Terminal             | 5000 |
| Software development | 3000 |

Initial total costs 8000

Monthly computer costs 100

Time schedule: 3 weeks

4. Existing Mini-computer

Initial software development 4000

Time schedule: 4 weeks

TASK 2 - LOG OF CONTACTS

A. Description of Requirements

This system will record summaries of Admiral Turner's conversations for later retrieval. The input will contain: (1) participants in conversations; (2) key words of conversations; and (3) abstracts of conversation. Typical searches will be by name or key word. The response time to key word searches should be less than 30 seconds. Search of the abstract will occur infrequently and the elapsed time should be less than 30 minutes. The system should have nearly 100% availability without the cost of backup hardware.

B. Discussion of Alternatives

In order to meet the high availability figure, a dedicated mini-computer should be used. Experience with terminals connected to a centralized service indicates that the system will have 90-95% availability. The mini-computer suggested for this application is the Microdata REALITY system. ODP recently participated in a study of mini-computers that solve this class of problem, and the REALITY system was chosen to be the standard.

The Executive Registry System (ERS) was built for the DCI in 1974. The specifications of the ERS were similar to this new request and a short discussion of our experience with the ERS is appropriate.

The ERS attempted to automate the Correspondence Index in the DCI office. The system functioned properly, however, it was discontinued after an initial trial period. The reasons for the failure were:

1. Availability - The terminals were connected to the ODP central service and the system was available approximately 90%. Requests for data in the ERS are not predictable and answers are needed in "Real Time". The 10% down time was unacceptable.
2. Indexing - The success of the ERS is largely dependent upon the quality of the indexing. In the manual system, the key words are assigned by one person primarily for consistency. The automated ERS attempted to decentralize the function and the index was not built properly.

3. Conversion - The transition from a manual file to an automated one was extremely difficult. The people in the office are under constant pressure to respond to deadlines and there was little time for learning a new system. Additional people or extra hours are needed if a new system is tried again.

A mini-computer is an appropriate solution to ERS. This would solve the availability issue. The indexing and conversion difficulties need additional study. The automation of the Log of Contacts (Task #2) should precede any activity on the ERS. The same mini-computer could support both activities. After Task #2 is successfully implemented, the ERS can be restudied.

### C. Cost and Time Schedule

Initial costs:

|                      |           |
|----------------------|-----------|
| REALITY computer     | \$100,000 |
| Site preparation     | 15,000    |
| Software development | 20,000    |

|                     |           |
|---------------------|-----------|
| Total initial costs | \$135,000 |
|---------------------|-----------|

Time schedule:

Software development 5 months after procurement

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